

KERATAN AKHBAR-AKHBAR TEMPATAN
TARIKH: 07 APRIL 2018 (SABTU)

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Penyelidik MPOB dianugerah juruteknologi negara

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Kuala Lumpur: Penolong Pegawai Penyelidik Lembaga Minyak Sawit Malaysia (MPOB), Wan Saridah Wan Omar yang bertugas di Bahagian Kemajuan Bioteknologi dan Biakbaka dinobatkan sebagai penerima Anugerah Juruteknologi Negara 2018 dan membawa pulang hadiah berupa medal, sijil dan hadiah wang tunai berjumlah RM10,000.

Penyampaian anugerah disampaikan Menteri Sains, Teknologi dan Inovasi, Datuk Seri Panglima Wilfred Madius Tangau sempena majlis perasmian Minggu Inovasi Negara di Pusat Sains Negara, di sini.

Anugerah anjuran Kementerian Sains, Teknologi & Inovasi (MOSTI) itu adalah untuk memberi pengiktirafan terhadap sumbangan saintis, penyelidik dan juruteknologi dalam bidang penyelidikan dan pembangunan (R&D) negara disamping memupuk budaya kecemerlangan yang berterusan dalam bidang sains, teknologi dan inovasi.

Wilfred dalam ucapannya ber-



Wan Saridah menerima anugerah daripada Wilfred Madius Tangau di Kuala Lumpur

kata, kemajuan dalam bidang sains, teknologi dan inovasi adalah penting untuk melonjakkan Malaysia menjadi sebuah negara maju yang berpendapatan tinggi terutama ketika melangkah ke era Revolusi Industri 4.

Pada majlis itu, beliau turut me-

nyampaikan Anugerah Saintis Muda Negara dan Anugerah Khas STEM.

MOSTI menganjurkan Minggu Sains Negara serentak di 13 lokasi seluruh negara selari dengan Sambutan World Science and Culture (UNESCO).

MPOB peroleh pingat di i-INOVA

➔ Kejayaan menerusi inovasi hasil makanan ayam berasaskan sawit

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▀ Nilai

Lembaga Minyak Sawit Malaysia (MPOB) berjaya memperoleh masing-masing satu pingat emas, perak dan gangsa pada majlis anugerah dan pameran inovasi 8th Exposition on Islamic Innovation (i-INOVA) 2018 yang berlangsung di Universiti Sains Islam Malaysia (USIM), di sini, baru-baru ini.

Anugerah disempurnakan Tim-

balan Menteri Sains, Teknologi dan Inovasi (MOSTI), Datuk Wira Dr. Abu Bakar Mohd Diah.

MPOB berjaya merangkul pingat emas melalui inovasi *Replacement of Imported Feed Ingredient in Chicken Feed Using Highly Digestible Palm Kernel Cake* (Purafex) projek diketuai Rohaya Mohamed Halim.

Penghasilan makanan ayam

Inovasi ini adalah penghasilan makanan ayam berasaskan sawit dengan menggunakan sehingga 45 peratus kandungan dedak isirung sawit (Purafex) dalam rumusannya.

Kajian mendapati ayam yang menggunakan rumusan dibangunkan MPOB mempunyai kandungan lemak yang rendah dan mampu mencapai tumbesaran hampir sama berbanding penggunaan makanan ternakan komersial.

Sementara itu, pingat perak diraih inovasi *Oil Palm Genome Revolution: Translating Innovations to Practical Applications*, projek diketuai Chan Kuang Lim; manakala pingat gangsa diraih inovasi *Multipurpose Palm-Based Creamer*, projek diketuai Dr Noor Lida Habi Mat Dian.

Inovasi *Oil Palm Genome Revolution* ialah sistem bioinformatik bersepadu yang memudahkan penggunaan data genom sawit untuk anotasi dan visualisasi genom.

Penggunaan data genom dan sistem bioinformatik di MPOB menghasilkan penemuan gen-gen yang membawa sifat agronomik penting dalam sawit.

Inovasi *Multipurpose Palm-Based Creamer* pula adalah krimer pelbagai guna berasaskan sawit yang sihat dan efektif kos dan merupakan alternatif kepada krimer berasaskan produk tenusu.

Produk ini diformulasikan de-

ngan menggunakan lemak dan asid lemak sihat, sangat stabil dan sesuai dalam pelbagai suhu.

Platform perkenal produk inovasi

i-INOVA adalah platform memperkenalkan produk inovasi dan berinovatif dari institusi pengajian tinggi serta institut penyelidikan dalam dan luar negara.

Pertandingan reka cipta yang bermula sejak 2010 anjuran USIM adalah bagi mendukung aspirasi kerajaan agar budaya inovasi dijadikan amalan oleh masyarakat negara ini.



Pegawai penyelidik MPOB yang memenangi pingat pada i-INOVA 2018 di Nilai, baru-baru ini.

Implan titanium pulihkan kerosakan anggota badan



Dr Kartini menunjukkan Implan Titanium pada sesi temu bual di SIRIM.

➔ Teknologi tempatan perbetul bahagian asal muka, sendi, tulang dan rahang

Oleh Halina Mohd Noor
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Sejak dulu, tidak banyak boleh dilakukan untuk memulihkan bahagian kepala dan wajah yang rosak akibat kemalangan atau mahupun kecacatan sejak lahir.

Bagaimanapun pada masa kini, terdapat teknologi pencetakan tiga dimensi (3D) yang membolehkan implan logam dicetak bagi menggantikan bahagian yang rosak.

Teknologi pembentukan semula kraniofasial ini dibangunkan Institut Piawian dan Penyelidikan Perindustrian Malaysia (SIRIM) menggunakan sistem implan titanium. Program dilaksanakan menerusi pemberian geran berjumlah RM3.5 juta oleh Kementerian Perdagangan Antarabangsa dan Industri (MITI) sejak 2016.

Pengarah Pusat Inovasi Perindustrian Dalam Bioperubatan, SIRIM, Dr Kartini Noorsal, berkata usaha itu membolehkan teknologi berkenaan digunakan di dalam negara.

Beliau berkata, penggunaannya dengan kos lebih berdaya saing selain cepat sekiranya peralatan pencetakan tiga dimensi berkenaan ditempatkan di lokasi berdekatan hospital.

"Kranio bermaksud tengkorak, manakala fasial pula muka. Tekno-

logi ini berupaya memulihkan bentuk asal kraniofasial, sendi, tulang dan rahang yang terjejas disebabkan oleh kemalangan atau faktor lain.

Imbasan tomografi berkomputer

"Titanium dengan bantuan reka bentuk bantuan komputer (CAD) digunakan bertujuan menghasilkan bentuk tertentu yang digunakan dalam implan kraniofasial dan maksilofasial. Prosedur ini berupaya menggantikan bahagian tengkorak atau tulang muka yang rosak," katanya.

Menurut beliau, laporan imbasan tomografi berkomputer (CT Scan) pesakit yang diterima dari hospital akan diproses. Kemudiannya, SIRIM akan menggunakan perisian perubatan (MIMICS, Belgium) daripada imej 2D kepada 3D.

Data 3D digunakan bagi merekabentuk implan menggunakan perisian rekabentuk (3-MATICS, Belgium). Selepas rekabentuk implan dihasilkan, proses fabrikasi menggunakan teknologi Pembuatan Aditif (AM) digunakan untuk menghasilkan biomodel implan dan tengkorak pesakit.

Biomodel yang dihasilkan akan dirujuk kepada pakar neurosurgery untuk memastikan rekaan yang dihasilkan memenuhi spesifikasi

dan anatomi pesakit.

"Pembentukan semula implan dihasilkan menggunakan teknologi cetakan logam 3D yang sedia digunakan kepada pesakit.

"Terdapat pelbagai jenis implan logam 3D dihasilkan, namun SIRIM menghasilkan jenis titanium mesh yang diperkenalkan sejak 2011," katanya.

Setakat ini, 63 pesakit sudah menjalani pembedahan implan titanium terutama di hospital awam dan beberapa hospital swasta. Hasil teknologi ini, bukan saja menjimatkan masa pembedahan malah tulang asal anggota tidak diubah untuk memuatkan tampalan titanium.

Pada masa ini, kilang hanya mengeluarkan saiz standard menyebabkan tulang asal terpaksa dipotong sedikit untuk memuatkan implan titanium berkenaan.

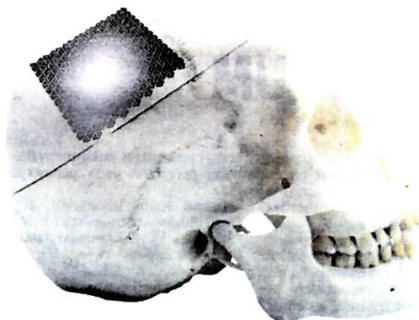
Dr Kartini berkata, pencetakan logam 3D hanya terdapat di Kolej Kemahiran Tinggi MARA di Kuantan dan di sebuah syarikat swasta di negara ini.

Titanium mesh digunakan kerana faktor fizikalnya lebih ringan dan sesuai diletakkan pada bahagian kepala. Bentuknya pula seakan jaring membolehkan bahagian isi dan tulang tumbuh sekata di antara lubang yang terdapat pada implan berkenaan.

Info

Teknologi pencetakan 3D berpotensi menggantikan anggota lain:

- ➔ Jantung
- ➔ Kulit
- ➔ Tisu hidung dan telinga
- ➔ Ubat pelbagai komponen bahan aktif bertujuan merawat penyakit dimasukkan dalam satu pil
- ➔ Implan lutut



Kepingan titanium diimplan pada bahagian tempurung kepala yang rosak.



Pembentukan semula implan dihasilkan menggunakan teknologi cetakan logam 3D yang sedia digunakan kepada pesakit"

Dr Kartini Noorsal,
Pengarah Pusat Inovasi Perindustrian Dalam Bioperubatan, SIRIM



ONLINE CAREER APTITUDE EXAMINATION

Prospek Kerjaya test to help students choose field of study, career path

KUALA LUMPUR: The Malaysian Examinations Council (MPM) and Mimos Bhd have introduced an online instrument called Prospek Kerjaya that can help Form 6 and secondary school leavers make better decisions in choosing their field of study and career.

Combining Mimos' technology expertise and MPM's expertise in the development and management of education assessment, Prospek Kerjaya is a test that assesses aptitudes and career inclinations of individuals, which are matched to appropriate fields of study and career options.

The digital test can be accessed online.

The assessment is targeted at students as young as 15. It identifies the strengths of their career interests. It advises the field of studies that is suitable based on the career interests, and the relevant courses that are available at academic institutions in Malaysia, based on a database with profiles of more than 500 "job families", or groups of related jobs and study fields.

In its pilot test, 47 students from Kolej Tingkatan Enam Desa Mahkota, Kepong, have taken the test, while 125 Form 6 students have taken the test when it was launched on March 6.

The system compiles data on fields of study from public and private institutions of higher ed-

ucation that can be used to guide examinees. At present, institutions that have begun to use the Prospek Kerjaya include Mara Poly-Tech College, Perdana University, UCSI University, Asia-Pacific University of Technology and Innovation, Infrastructure University Kuala Lumpur and Universiti Malaysia Sarawak.

In addition to recommending areas of learning and career options, Prospek Kerjaya also provides information on institutions that offer relevant academic programmes.

The use of digital assessment technology is expected to contribute towards the advancement of the country's educational institutions through the intake



The Prospek Kerjaya test can help Form 6 and secondary school leavers make better decisions in choosing their field of study and career. PIC BY ASYRAF HAMZAH

of students who possess appropriate aptitudes and career interests. Mimos and MPM have undertaken collaborative research and development work since early last year, before signing a memorandum of understanding during the same year to enable the latter to use Prospek Kerjaya in the assessment of students.

Both agencies are scheduled to

participate in educational and career carnivals from last month through next month to give students the opportunity to try out the online instrument. One of the event is the Minggu Sains Negara 2018 at Da Men Mall, Subang Jaya, Selangor, which ends tomorrow, where Mimos is showcasing the test.

For more information, visit <https://portal.mpm.edu.my>.

Online content set to be reviewed



Mustaffa: We are in the process of discussing with them some of the new changes, updates and developments pertaining to content distributed electronically.

Code may encompass stringent requirements for certain content

AFTER an earlier attempt to review the electronic network media content code was put on hold, the Communications and Multimedia Content Forum of Malaysia (CMCF) is optimistic it will, this time around, be given the green light by the relevant authorities.

The content code will incorporate, update and revise some of the provisions governing electronic content which is distributed electronically and may encompass stringent requirements for certain online content.

Its executive director Mohd Mustaffa Fazil Mohd Abdan tells StarBizWeek that CMCF has already completed the draft of the content code and submitted it to the Malaysian Communications and Multimedia Commission (MCMC) for its views.

"CMCF hopes to register the content code, which is a regulatory document, hopefully sometime this year.

"If we are successful in producing a workable draft endorsed by the MCMC, we will carry on with public consultation exercise and take into account every stakeholder's opinion of the proposed code and submit it for registration," he said during an interview with StarBizWeek.

The Malaysian Communications and Multimedia Content Code is officially registered with the MCMC with effect from Sept 1, 2004 and CMCF is a regulatory body that governs the code by way of industry self-regulation.

Mustaffa adds since 2004 many new developments and standards have emerged in the electronic advertising space, noting that responsible content to safeguard consumers is the priority of the code.

Towards this end, he says marketers and advertisers have to be responsible for the content that is put up online so as not to deceive consumers.

Content pertaining to slimming products and obscene and indecent ones will be among those that will be reviewed under the revised code.

Mustaffa says CMCF, among others, will also look at benchmarking some of the revised contents of the code with international standards where necessary amid the rapid changes in the electronic advertising landscape.

He adds there are 10 parts of the code which will still be maintained due to its applicability but some of it may be amended, vary or left unchanged.

"We don't want to reinvent the wheel.

"CMCF will look at revising and updating some of the parts of the content code to make it more helpful and progressive taking into account the current electronic advertising environment," he stresses.

On another front, he says CMCF, in collaboration with **CyberSecurity Malaysia**, is working on an initiative to encourage consumer confidence of Malaysian-based websites.

"Right now, we are looking to do a pilot test on websites which are registered in Malaysia and offer them a certification by both CyberSecurity and CMCF.

"The former will look into the technical aspect of the website while the latter will look into the contents part.

"As for us, we will advise on the legality of the content within the parameters of the content code and award a seal or a certification to ensure the safety and authenticity of the website.

"We plan to launch this initiative by this year," Mustaffa notes.

Meanwhile, the number of complaints received by CMCF's Complaints Bureau was lower last year compared with 2016.

Last year, there were 395 cases comprising 393 complaints and two advisory enquiries against 527, comprising 524 complaints and three advisory enquiries, in 2016.

Among the main complaints were those related to Internet, mobile and advertising contents.

CMCF launched its latest campaign "Di Sebalik Wajah" September last year to create awareness on the consequences of spreading fake news online as well as interact and engage with visitors to its portal.

CMCF also participated in the 'Jelajah Sebenarnya.my' campaign organised by MCMC.

Among others, it aims to explain and raise awareness on the importance of self regulation.